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# Differentiation and Explicit Teaching: Integration of Students With Learning Difficulties

France Dubé, Lyne Bessette, Catherine Dorval Université du Québec à Montréal, Canada

This collaborative research was carried out among 197 elementary school students, in the context of a rural Canadian school of the Quebec province. Several students of the school presented learning difficulties, mostly in writing. The teachers and the learning specialist decided to differentiate the groups in special subgroups of needs that met for a half-day once a week; they also implemented the explicit teaching of writing. The results showed that there was an important improvement in all the students' writing ability, especially of those with learning difficulties. Indeed, the subgroups of students with severe learning difficulties showed a significant reduction in the average error rate. The dialogue among the teachers, the learning specialist, the director and the researcher was a key component for the success of this project, which aims mainly to accompany the teachers and to encourage the effective integration of students with learning difficulties.

Keywords: integration, differentiation, explicit teaching, writing, pedagogical innovation

## **Problem**

According to various studies, the integration of students with learning difficulties into regular classes contributes to the learning process (Bear & Proctor, 1990; Gross, 2003). However, regular teachers felt this integration was a real challenge (Meese, 2001). In Quebec schools, students with learning difficulties are removed from their classroom and referred to learning specialists—orthopédagogue in French—for a specific number of periods or sessions (generally between 30 and 60 minutes) per week for remedial exercises or re-education. They may work individually or in groups of three or four students. This practice poses several negative effects—it stigmatizes the student leaving his/her classroom to receive a special education service (Affleck, Madge, Adams, & Lowenbraun, 1988); the student misses regular classroom instruction (Bean, Cooley, Eichelberger, Lazar, & Zigmond, 1991); the abilities and behaviours learned outside the classroom lack generalization (Adamson, Matthews, & Schuller, 1990); and there is a lack of coherence and coordination between the classroom teacher and the learning specialist regarding the content, teaching plan, material, terminology and strategy used (Slavin, 1987).

In 2000, Quebec implemented an education reform, which states that the mission of the school is to help students succeed in terms of instruction, socialization and qualifications. A restructuring of the curriculum in elementary school is also proposed. The elementary level of education is thus divided into three two-year cycles so as to take into account the development of competencies implying long-term pedagogical

France Dubé, Ph. D., professor, Special Education Department, Université du Québec à Montréal.

Lyne Bessette, Université du Québec à Montréal.

Catherine Dorval, Université du Québec à Montréal.

interventions. The new competence-based education program respects the students' learning rhythm and enhances pedagogical differentiation (Ministry of Education, 2001). The students now have two years to develop the competencies they need to move onto the next cycle. The elementary level hence is divided into three two-year cycles: the first cycle of the elementary school (i.e., grades one and two), the second cycle of the elementary school (i.e., grades three and four), and the third cycle of the elementary school (i.e., grades five and six). At the end of each cycle, the teacher writes a competence report to determine each student's progress. Students are considered to have learning difficulties when the analysis of their situation shows that the remedial instruction measures implemented by the teacher or other school stakeholders during a significant period of time, have not allowed him/her to achieve the minimal educational requirements for the cycle either in mathematics or in the language of instruction (Ministry of Education, Recreation and Sport, 2007). It is important to specify that Quebec special education policies favours the integration of disabled students, who are with learning difficulties or adjustment difficulties (Ministry of Education, 1999). However, teachers feel that it is a really difficult responsibility due to the complexity of the task, as they have to teach a class where there are students with a variety of difficulties and they are also responsible for the individual follow-up. In order to support the integration of students with difficulties and attain their learning needs while developing the reading, writing and mathematics competencies expected at their level, the educational milieu has to innovate.

The general research question is as follows: What innovating services can favour the mainstreaming and the development of the writing competencies of elementary school children with difficulties?

#### Framework of Reference

In a previous study that examined and described various innovative teaching methods contributing to the success of students with learning difficulties integrated to elementary school regular classes, differentiation, flexible grouping, direct teaching and explicit teaching have proven to be effective (Dubé, 2008). Empirical studies have already analysed the flexible grouping, the explicit teaching and their effect on the development of competencies in elementary schools and more particularly among students with learning difficulties.

# **Flexible Grouping**

Flexible grouping strategies are based on Vygotsky's socio-constructivist conceptual model, which recognizes the contribution of the peers' influence and the teachers' intervention in the learning process. Groups are organized so as to meet the students' individual and changing needs. The teachers organize them taking into account the students' strengths and difficulties. In this context, subgroups are formed and dissolved to fit the students' learning needs. The subgroups of needs comprised a variable number of students and they respected the specific needs of the students of one or more classes (Reutzel, 2003). Tomlinson (2000) suggested that the subgroups of needs helped teachers achieve an overall picture of the students; this overview can evolve and be evaluated in different learning contexts. The use of various materials, different levels of difficulties and activities based upon the students' interests are practices that should always be privileged. She suggested that differentiated instruction should allow flexible grouping in order to grant different learning contexts.

In the United States, Castle, Baker, and Tortora (2005) have studied the flexible grouping in an elementary school of 435 students in order to evaluate its impact on students' basic knowledge. The research lasted five years, during which the researchers assessed the students' progress in reading and writing skills by means of

standardized assessment tools. The researchers also studied the way in which flexible grouping was implemented, and to do so they studied the classroom practices and interviewed the teachers. Notable progress was reported both in the students' reading and writing competencies, when they profited from flexible grouping from first grade onwards, during which the research was implemented. Only 25% of the school teachers put into practice the flexible grouping at least once a week during the second year of the study, while there was 95% that put it into practice on a weekly basis during the fifth year. Seven out of nine interviewed teachers have observed positive effects on the students' learning process. According to them, the positive effects are due to the fact that students can work on a specific notion connected to their specific learning needs while their attention is focused on a particular and specific objective. They have also reported a better concentration at work, when they are in small groups, as well as a higher motivation, more ease and self-confidence. These researchers stress that each teaching instance requires a particular consideration, when students having the same needs are associated within the framework of flexible grouping. They say flexible grouping contributes to individualized instruction, providing superior quality instruction to all students while eliminating the stereotypes that arise when students have to follow a particular learning path. The results confirm what other studies have shown regarding the positive effects differential instruction used in combination with flexible grouping has on reading (Baumgartner, Lipowski, & Rush, 2003; Radencich & McKay, 1995).

The results show the positive effects of flexible grouping, particularly when groups are implemented for more than three years. Castle et al. (2005) précised that groups have to be constantly rearranged so as to always respect the specific needs of the students and the progress they made. The flexible groupings previously studied help differentiate the learning process, according to the particular needs of the students, whether they have a high level of performance or they experience learning difficulties. When the groups of needs are associated to a structured teaching practice, they help the acquisition of basic knowledge and school integration. In the next section, we have listed the empirical studies that examine the effects of explicit teaching on learning.

# **Explicit Teaching**

Explicit teaching has its origins in studies made on effective teaching practices and is based on direct teaching. This research trend examines the teaching strategies and techniques used by expert teachers and thus empirically proven to be "efficient". Some of the effects of explicit teaching—approach based on cognitive psychology—are the development of the students' feeling of competence, self-confidence, more engagement and a greater feeling of responsibility. Students developed a better comprehension of their difficulties and applied appropriate strategies to overcome them (Beckman, 2002). Rosenshine (1986) divided the explicit teaching into three distinct and successive phases:

Modeling, where the teacher makes demonstrations, making explicit the procedures and reasoning that would otherwise be implicit.

Guided practice, where the teacher accompanies the students, organizing team tasks.

Independent practice, where the teacher provides practice for seatwork exercise and pedagogical activities tied to previous learning, while reinvesting what students have understood during the modeling and the guided practice phases. (p. 305)

In Quebec, Boyer (1993) developed an explicit teaching method for reading that helped the students

become accountable for their own learning, as well as it made them be aware of the strategies they used and those they should have used; it recalls cognitive strategies and learning items trying to make them conscious. Its aim is to make visible the cognitive procedures put into practice, while they are reading. These meta-cognitive activities allow students to automate the decoding process, so that it becomes fast and accurate.

We will briefly explain the explicit teaching model we have implemented during our research. It works as follows: Firstly, the goals of the activity and the expected level of performance are clearly defined, and the necessary previous basic knowledge is recalled; a few examples are presented and a demonstration is done; then the teacher asks a few questions and objectifies. Afterwards, students either work alone or in teams so as to use the strategies that they have learned. The teacher evaluates their performance and provides them feedback on the answers given and the strategies they have used. Finally, they revise and the teacher provides independent practice (Swanson & Deshler, 2003). According to several studies, the explicit teaching would be effective to favour reading, mathematics, grammar and the first language learning (Rosenshine, 1986). Likewise, it would also be effective to contribute to the success of students with learning difficulties (Swanson & Hoskyn, 1998; Gauthier, Mellouki, Simard, Bissonnette, & Richard, 2004).

Our specific research question is: Up to what extent does the flexible grouping associated to the explicit teaching contribute to the development of competencies in writing of students with learning difficulties integrated to regular classes?

#### Method

# **Research Objectives**

This research has two main objectives:

- (1) The first objective is to contribute to the development of writing competencies of students with learning difficulties integrated to regular classes. This objective targets mainly the competence "write different types of texts" of the Quebec Education Program;
- (2) The second objective is to accompany the teachers in the development of a dynamics of pedagogical concentration and a reflective practice (Schön, 1994) towards the group differentiation for all cycles, and this, associated with an explicit teaching approach in writing.

#### **Research Development**

We implemented a group and teaching differentiation by establishing flexible groupings on a half-day per week basis associated to two hours of explicit teaching strategies in writing. These groups were not fixed, as they were constantly reconfigured to accommodate the students' specific needs and the progress they made during the school year. As we have already specified in our framework of reference, empirical results show that explicit teaching can be particularly effective for students with learning difficulties (Rosenshine, 1986; Beckman, 2002; Swanson & Deshler, 2003; Gauthier et al., 2004); it also shows that the differentiation associated to a structured teaching program by means of flexible grouping favours the development of competencies of students with learning difficulties. In this project, the students with learning difficulties, as well as those with conduct disorders have taken part in all the activities at the same time as their peers.

Our aim of collaborative research is to accompany the teachers and establish durable teaching practices adapted to the school needs, which will allow the development of an expertise in the participating school. By means of a reflective practice (Schön, 1994), the different school participants have decided together what the

students' needs were at the beginning of the school year and they have followed the evolution of the first, second or third cycle students, planning differentiated explicit teaching activities every month during all the school year. Figure 1 presents a schematization of the teachers' process of reflexive analysis.

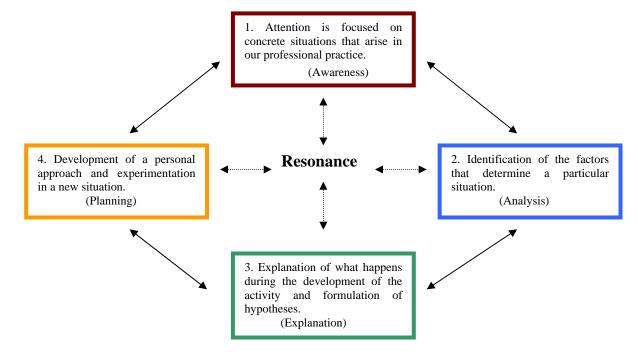


Figure 1. Teachers' reflexive analysis (adapted from Holborn, 1992).

The reflexive analysis essentially entails a continuous process of four phases: (1) becoming aware of pedagogical practices and describes them; (2) analyzing them; (3) explicating the actions and formulating the clues or hypothesis to better meet the students' needs; and (4) guiding the students towards future pedagogical practices. These practices are experimented in new situations and subsequently analyzed; immediately afterwards, another cycle begins. These concentration and analysis models have empirically proven their success (Hunt, Soto, Maier, & Doering, 2003).

## **Procedures**

At the beginning of the school year, the learning needs of the students of the three cycles were identified, and the subgroups of needs were established, taking into account their level of competence in writing. Then, the students named their groups: comets, meteoroids, suns, etc.. Students with severe learning difficulties benefited from the explicit teaching in subgroups of needs with a ratio of one teacher for every six students. For the students with less severe learning difficulties, and those who had already developed the required competencies in writing, the teachers proposed writing situations respecting their learning needs, always favouring explicit teaching strategies in writing. The more students the groups had, the better the students' level of competence was. However, subgroups were flexible: Students could change subgroups at any time during the school year. Each teacher was responsible for a subgroup of needs. The learning specialist was responsible for the subgroup with severe learning difficulties in the first, second and third cycles.

The monthly guidance meetings guaranteed the students' follow-up and the researcher accompanied the

school participants both in the organization of the flexible groupings (Tomlinson, 2000) and the planning of the explicit teaching approach activities, respecting the students' learning difficulties which were determined by the teachers of each cycle (Beckman, 2002; Swanson & Deshler, 2003; Gauthier et al., 2004). In addition, every fortnight, the students and the teachers of the three cycles participated in flexible groupings associated to two hours of explicit teaching in writing.

#### **Data Collection**

A mixed method was used for qualitative and quantitative data collection:

- (1) To achieve the first objective of the research and evaluate the progress of the development of the students' competencies, three writing tasks were designed to evaluate the students' progress: one at the beginning (in October), another in the middle (in January) and the third at the end (in May). We could thus compare the results from the beginning to the end of the school year for every student of all subgroups' needs;
- (2) To achieve the second objective of the research, a concertation and training day on explicit teaching was planned at the beginning of the school year with the teachers, the learning specialist, the principal, the research assistant and the researcher.

We will now describe the explicit teaching model applied in our study:

- (1) Clearly define the goals of the activity and the expected level of performance;
- (2) Review of previous, prerequisite learning;
- (3) Present examples and do demonstrations;
- (4) Ask the students a few questions and favour the objectivity;
- (5) Make the students work alone or in teams to apply the strategies explicitly taught—this phase enhances the cooperation among the students of the subgroup;
- (6) Evaluate the students' performances and provide them feedback on the answers given and the strategies they have used;
  - (7) Do independent practice and revise. (Swanson & Deshler, 2003)

Monthly meetings assured the follow-up. The teachers and the learning specialist wrote a fortnight journal so as to leave traces of the component skill "write different types of texts" done in the subgroups' needs and also to write down the modifications the subgroups experience. The observations were written down in a structured way and all the participants used identical notebooks, so as to facilitate the future qualitative data collection (Van der Maren, 1996).

# **Samples**

The sample was composed of 197 students, of whom 39 were of the first cycle in the second year, 80 were of the second cycle in the third and fourth years, 64 were of the third cycle in the fifth and sixth years.

The school has 250 students in all but those attending kindergarten (five years old) and the first school year were not included in the research.

# **Data Analysis Plan**

The data obtained in the tasks done in October (task 1), January (task 2) and May (task 3) were analysed, so as to determine the progress of students with learning difficulties and the data obtained was compared to that of the other subgroups' needs. The complex writing tasks were corrected with the help of a uniformed and standardized assessment grid. The data were compiled and analyzed using Excel.

The teachers and the specialist wrote a weekly journal, which was mechanically analyzed with a word processor and the results for each teaching cycle were compared to trace the modifications made to each subgroup of needs. The data collected also allowed us to keep traces of the writing strategies employed as well as the phases of the explicit teaching planned for each one of the subgroups of needs.

The results obtained in the competence "write different types of texts" were assessed as follows. One corrector, a graduated teacher and candidate to a Master in Education, corrected the three writing tasks with the help of an assessment grid based on Ministère de l'Éducation, du Loisir et du Sport (2004). We established five error categories: orthography, conjugation, agreement, punctuation and syntax. We counted the total number of words written by each student, as well as the number of errors for each category in order to calculate the error rate as follows:

Number of errors (ne)  
Total number of words (nt) 
$$y = \frac{ne}{nt} * 100$$
  
Error rate (y)

#### Results

Firstly, we will show the results of the three writing tasks for all the students differentiating their elementary level cycle. Secondly, we will present the results for each subgroup's needs from the first cycle, the second cycle and the third cycle, specifying the results of each subgroup of needs, as well as the type of errors that they made in each of the three writing tasks. Finally, we will bring before the teachers the results obtained.

#### The Students

Figure 2 shows a reduction in the error rate for the students of the first, second and third cycles between the first and the second task. A slight increase can be observed during the third writing task. However, on average, there was a 5.45% reduction for the first cycle, an 8.1% for the second cycle and a 7.61% for the third cycle from the beginning of the school year to the end, for all types of errors. The vertical line illustrates the variances for each one of the activities.

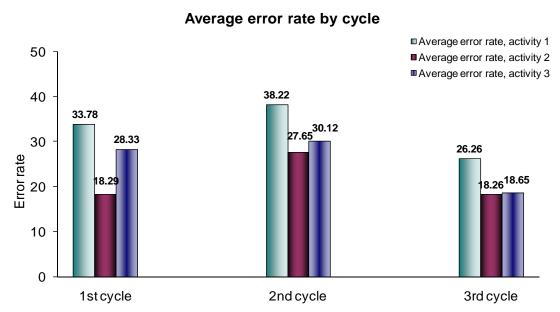


Figure 2. Students' average error rate for the three cycles.

The first cycle students. We will show the results of the three writing tasks of first cycle students. The subgroups' needs were divided as follows: Subgroup 1 gathered the students with severe learning difficulties in writing, while subgroup 4 with the highest level of competence in writing. Figure 3 presents the average error rate in the students of all subgroups differentiating activities 1, 2 and 3.

# Average error rate of 1st cycle subgroups

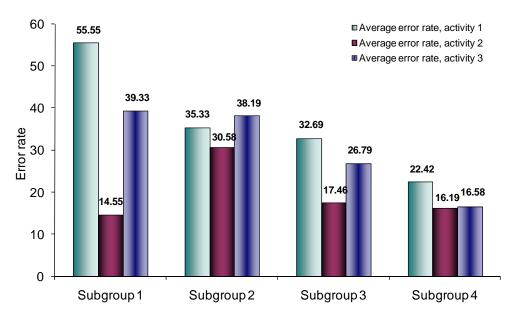


Figure 3. The first cycle average error rate for all subgroups of needs.

When we assessed the students' results, we also compared the subgroups of needs among them. We found that those with severe learning difficulties (subgroup 1) had the greatest reduction in error rate, from 55.55% to 39.33%, a 16.22% reduction, and it is for all types of errors, from the beginning to the end of the school year.

Figure 4 shows the total number of words written for each of the writing tasks in the subgroups' needs. We observe an increase in the number of words written by all subgroups with a highest increase for the group of students with high level of competence. They wrote longer texts reducing a 5.84% their error rate.

Figure 5 shows the error rate for each one of the three writing tasks, according to the five categories of errors. The results allow us to establish that the most important error rate reduction was observed in orthography, from 19.88% to 13.88%, an average reduction of 6% from the beginning to the end of the school year.

When we analyze the results of the subgroups of students with severe learning difficulties, we confirm once again that the orthography errors are the ones that decreased the most, from 34.04% to 20.06% between October and May, an average reduction of almost 14% (see Figure 6).

The second cycle students. In this section, we will present the results obtained in the three writing tasks of the second cycle students. The subgroups' needs were organized as follows: Subgroup 1 had the students with severe learning difficulties in writing, while subgroup 5 had those with the highest level of competence. The Figure 7 shows the students' average error rate for each of the subgroups differentiating activities 1, 2 and 3.

During the school year, there was an important reduction in the average error rate of second cycle students' needs. However, the increase of the error rate reported between the second and the third task for students in the

first cycle is not so noticeable for students in second cycle. If we analyze the results for the first subgroup of need—students with severe learning difficulties—they passed from an error rate of 51.14% to 37.75% from October to May. All the other subgroups' needs have improved their competencies in writing.

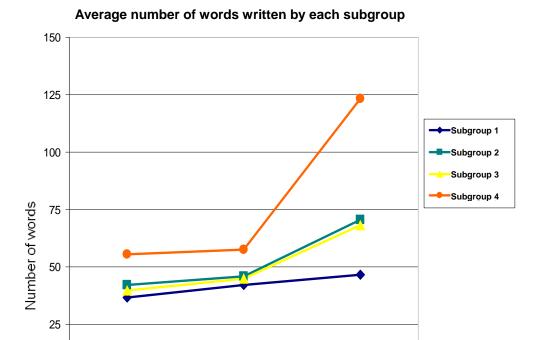


Figure 4. Number of words written by the first cycle students while in their subgroups of needs.

Activity 2

Activity 3

0

Activity 1

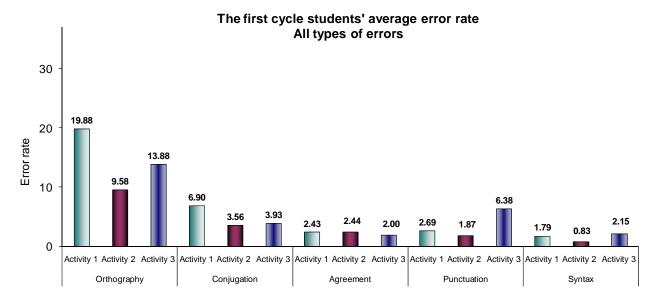


Figure 5. The first cycle average error rate according to the type of error.

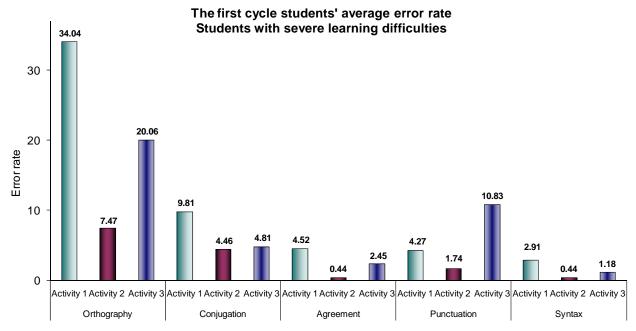


Figure 6. The first cycle students' average error rate of students with severe learning difficulties.

# Average error rate of 2nd cycle subgroups

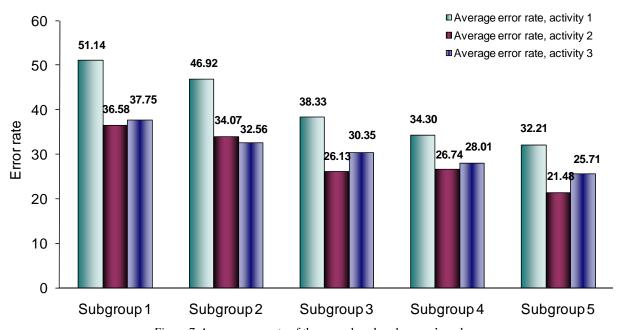


Figure 7. Average error rate of the second cycle subgroups' needs.

Figure 8 shows a significant increase in the number of words written for each one of the writing tasks for all the subgroups' needs. However, we observe that students with severe learning difficulties are those who had the most drastic increase in the number of words written. It is also important to observe that they are the ones who made fewer errors in the third writing task. These results show an important improvement of the level of

writing competencies for the second cycle students with learning difficulties.

# Average number of words written by each subgroup

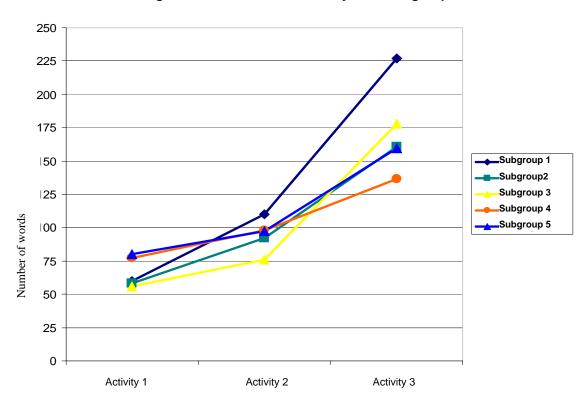


Figure 8. Average number of words written by the second cycle students while in their subgroups of needs.

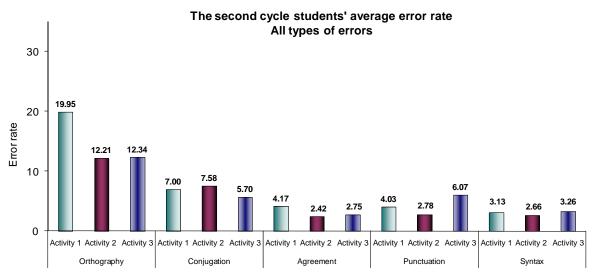


Figure 9. Average error rate of the second cycle students, according to the type of errors.

Figure 9 shows the reduction in the error rate, according to the type of error: orthography, conjugation, agreement, punctuation or syntax for all students in the second cycle, and this, for the first, second, and third writing tasks. We observe that for this cycle, the orthography errors are also the ones that significantly

decreased the most, from 19.95% in the first task, to 12.34% in the third task, an average reduction of 7.61%.

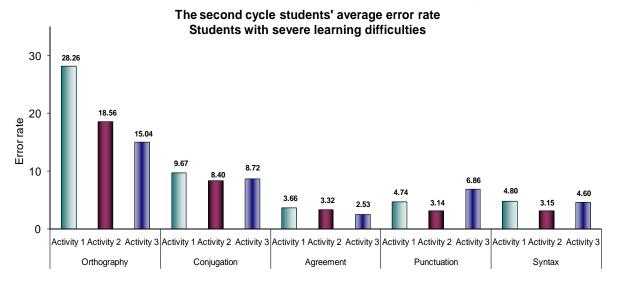


Figure 10. The second cycle average error rate of students with severe learning difficulties.

Figure 10 shows that students with severe learning difficulties were the ones who saw their orthography error rate constantly drop, from 28.26% on the first activity, to 18.56% afterwards. On the whole, the average reduction rate was of 15.04%, for the first subgroup, which represents a 13.22% reduction in the error rate of orthography. It was also observed that the subgroups that reported most overall positive effects in the first and second cycles were those students with severe learning difficulties.

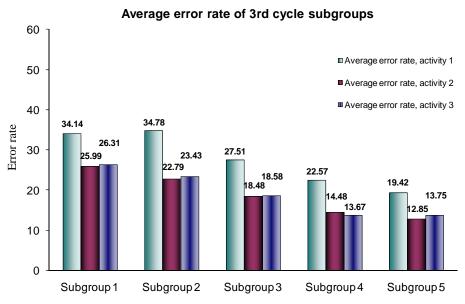


Figure 11. Average error rate of the third cycle subgroups' needs.

**The third cycle students.** As Figure 11 shows, all subgroups achieved, in average, an error rate reduction. However, for the third cycle, the students of the second subgroups' needs—those who presented difficulties but not severe ones—presented the most significant drop in the error rate from 34.78% in October, to 23.43% in

May, an 11.35% reduction in the error rate. For the students with severe learning difficulties, we observe that the average error rate fell from 34.14% to 26.31%, a 7.83% reduction in the error rate.

Figure 12 shows an important increase in the number of words written in each one of the writing tasks, and that for all the subgroups' needs, except for the third cycle students with severe learning difficulties. Indeed, the learning specialist responsible for this subgroup had asked the students to limit the number of words to 200. Unfortunately, we cannot assert if there would have been a rise of the number of words written for this subgroup, without the teacher's specific instruction.

# Average number of words written by each subgroup

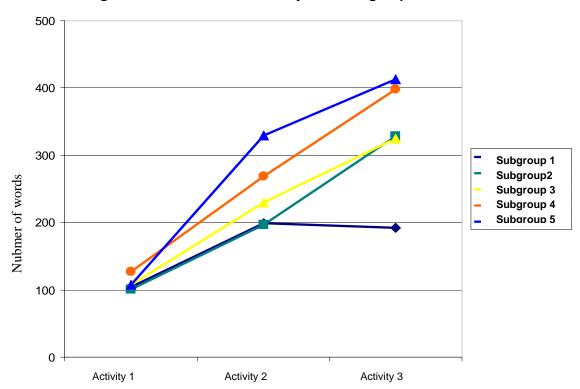


Figure 12. Average number of words written by 3rd cycle students while in their subgroups of needs.

The third cycle students, of all subgroups and considering the results of all students, saw their average error rate drop from 11.83% to 6.46% between the first and the third task, a 5.37% reduction in the error rate in orthography. For the other categories of errors we observe a 1% reduction of the average error rate (see Figure 13).

According to Figure 14, the analysis of the results obtained by the students of the subgroup with severe learning difficulties in writing, once again shows a marked reduction in the error rate in orthography. In fact, the error rate drops from 16.96% in September, to 10.57% in May, a 6.39% reduction in the error rate in orthography. This reduction is more important than the average for all the third cycle students, but it is less marked than for the students of the subgroups' needs with severe learning difficulties of the first and second cycles. For the other types of errors, few effects were observed. We note a minor increase of the punctuation error rate, a little more than 1%. Notwithstanding, the reduction in the error rate for the students in the third cycle is less important, not only in orthography but also globally. This can be explained by the fact that the third cycle students were more experienced writers and thus the effects of this methodology were not as marked as in

the subgroups of the other two cycles.

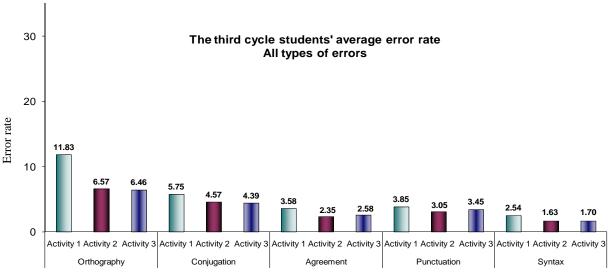


Figure 13. Error rate of the third cycle subgroups of needs according to the types of errors.

The third cycle students' average error rate

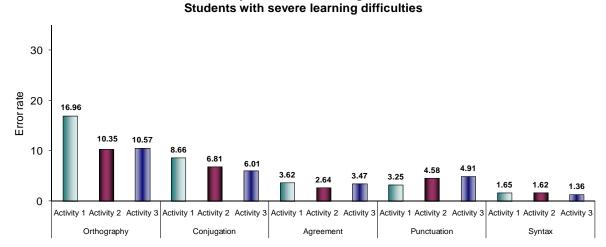


Figure 14. Average error rate for the third cycle subgroup of students with severe learning difficulties.

# The Teachers

The teachers, the learning specialist and the school principal wanted to innovate, so as to integrate all school students and help them with their difficulties. The researcher accompanied the teachers during the entire project so that they could go beyond their apprehensions: They had to delegate their students to another colleague of the same cycle, teach students that they may not know and thus had to adapt themselves to the students. It is important to point out that one of the guiding principles of this project is that teachers have to adapt themselves to the students' learning needs. The journal recorded the strategies explicitly taught during the flexible periods. The teachers chose topics in relation with the simple sentences: types of words, agreement, punctuation, spelling, as well as outline writing. Every month, once the theme for the cycle was determined, each teacher had to plan a sequence of differentiated explicit teaching recourses for the subgroup's needs he/she

was responsible for. The teachers noticed that all students, especially the youngest, were more motivated to participate in class, when they were in the subgroups. In addition, when they taught their own group of students, they could remark the positive effects of the subgroups, as the students used the strategies they had learned during the research project in every day writing situations, when they were in their own classes.

# **Discussion**

A global reduction in the average error rate for all cycles was reported. The most important reduction is shown from the first to the second task, with a minor increase of the average error rate in the third task. This increase could be explained by the fact that the third writing task was significantly longer. Unfortunately, for the third cycle students with severe difficulties, it is impossible to determine the variation of the number of words written, as the experiment conditions were different due to a restriction of the numbers of words they could write.

The first objective of the research was accomplished and the most important effects of our project association of the flexible grouping with the explicit teaching in writing were obtained for the first and the second cycles, and this is, particularly for the students with severe difficulties. These students did fewer errors, despite they wrote longer texts. In the following, we will present a synthesis of some of the most significant outcomes.

For the first cycle elementary students, comparing the error rate obtained at the beginning and at the end of the experiment, we note an average error rate variation of:

- (1) 16.22% of all types of errors, for the students with severe learning difficulties;
- (2) 6% of orthography errors, for all the first cycle students;
- (3) 13.98% of orthography errors, for students with severe learning difficulties.

For the second cycle elementary students, comparing the error rate obtained at the beginning and at the end of the experiment, we note an average error rate variation of:

- (1) 13.39% of all types of errors, for the students with severe learning difficulties;
- (2) 7.61% of orthography errors, for all the second cycle students;
- (3) 13.22% of orthography errors, for students with severe learning difficulties.

For the third cycle elementary students, comparing the error rate obtained at the beginning and at the end of the experiment, we note an average error rate variation of:

- (1) 7.83% of all types of errors, for the students with severe learning difficulties;
- (2) 5.37% of orthography errors, for all the third cycle students;
- (3) 6.39% of orthography errors, for students with severe learning difficulties.

These results confirm what a longitudinal study had already shown: Flexible grouping in writing would promote the development of competencies. In their study, the most important progress was reported for the students profiting from flexible groupings from the first grade and this, during the five years the research lasted (Castle et al., 2005). We combined the flexible groupings with the explicit teaching of writing, a method which had many times shown its effectiveness in the development of the competencies of the students with learning difficulties (Swanson & Hoskyn, 1998; Gauthier et al., 2004). Indeed, in our study, the positive effects of the combination of flexible grouping, associated with the explicit teaching of writing are particularly clear in the subgroups of students with learning difficulties or severe learning difficulty in writing.

In reference to the second objective of the research, the teachers developed a concerted planning approach

and changes were observed in their pedagogical practices. Indeed, the teachers systematically used various teaching strategies that implied the seven stages of the explicit teaching, while teaching their regular classes. Besides, certain teaching strategies, as the explicit teaching strategies of the students' self-assessment, were once again explained in the regular classes and frequently used by the students. As the same strategies were generalized in all the groups of a cycle, all the students could work with the same strategies and thus be more competent in writing. Formerly, each teacher showed his/her students a self-assessment procedure that was different from that of his/her colleagues in the same cycle. The fact that the teachers shared their pedagogical practices favoured transfers and learning consolidation from one year to another and from one cycle to the next.

The monthly guidance meetings, where a reflexive analysis of the pedagogical practices used, also contributed to the teachers and the learning specialists' professional development; to the instauration of generalized practices in all the school; and to the development of a consensus about the notion of differentiated and explicit instruction. This project contributed to the integration and the success of students with severe learning difficulties by differentiating the groups two hours per week, proposing teaching situations that respected the students' level of writing competencies and using the seven phases of the explicit teaching strategies in writing.

# **Conclusions**

We observe that there are indeed positive effects on the development of the competence "to different types of texts", when the flexible grouping is associated with the explicit teaching of writing. Furthermore, the results show a decrease of the average error rate when a writing task is presented to the students, and an increase in the number of words written between the beginning of the research project and its end. This increase of the level of competencies is mainly marked in orthography for the three cycles.

The monthly guidance meetings and the exchanges regarding the pedagogical practices employed, favoured the conciliation among the teachers of a cycle and the learning specialist. Moreover, the pedagogical strategies were presented to all the students of a cycle at the same time, but differentiating the groups and the learning situations so as to respond to the students' learning needs. This practice also favoured the transfer of the strategies previously learned in other writing situations when the students returned to their regular classes. In addition, the teachers of all cycles adopted the practices that they developed jointly during the concertation meetings.

The positive effects are reinforced by the possibility of working with the students on a specific notion, taking into account their precise learning needs. As a consequence, the students' attention is fixed on a writing strategy, one half-day every fortnight, in subgroups where the ratio teacher-student changes, according to the students' level of competence. Small subgroups enhanced the exchanges, the interactions and the questionings as the students received answers adapted to their learning needs.

# **Study Limits**

This collaborative research was implemented in only one elementary school. In order to be able to generalize the results, this research should be repeated in several different types of elementary schools: rural, urban, semi-urban, reputed, disadvantaged schools, etc.. Future research should also have a control group for each elementary cycle to further compare the evolution of the students' competencies in writing.

# **Collateral Effects**

This project stresses the importance of collaborative research strategies at schools. They facilitate the use of the results of empiric studies adapting them to the students' needs and to the teachers and school participants' pedagogical purposes, thus bridging the gap between the research and the practice (Buysse, Sparkman, & Wesley, 2003). This collaborative research project favoured the school integration and the development of competencies in writing, having a particularly positive effect on the quality of learning and teaching, specially for the students with learning difficulties integrated to regular classes, who did not have to endure the negative effects of being taken out of the classroom for special education services, such as stigmatisation, loss of regular classroom instruction and lack of coherence between what is learned out of the classroom and what is actually done in class.

Nevertheless, we recommend adjusting the subgroups whenever needed, so that they always respect the students' needs and follow the progress that they make during the school year. This practice enhances the effects of the association of flexible grouping with explicit teaching and helps to respond positively to the learning needs of students with learning difficulties. In addition, it proves to be important to implement subgroups' needs early during the elementary school and for several years.

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